

Application No. 10/593,057
Amendment
Reply to Office Action of April 26, 2010

PATENT

Amendments to the Drawings:

Attached is a copy of the drawings with which this application was originally filed. No new matter has been added.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

The Substitute Specification has been revised to conform it to the preferred format for U.S. patent applications, and a Second Substitute Specification and Second Comparison Copy are submitted herewith.

Claims 2-13, 15-19, 21, 22, 24, 24, 27, 30, 32, 33 and 35-38 are pending in this application. Claims 1, 14, 20, 23, 26, 28, 29, 31 and 34 have been canceled. Claims 2-13, 15-19, 21, 22, 24, 25, 27, 30, 32, 33, 35 and 36 have been amended. Claims 37 and 38 are new.

The Office Action required drawings because “this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c).”

This application was filed with one sheet of drawings, as is reflected on the return postcard with which this application was filed. A copy of the return postcard is attached.

Also attached is a duplicate copy of the drawing with which this application was filed. The duplicate copy is identified as “replacement sheet”.

All claims were rejected for a variety of formal deficiencies, lacking antecedents, impermissible parentheses, indefinite statements, “and/or” alternatives and the like.

Claim 1 has been replaced by new independent claim 37, which is free of the deficiencies noted with respect to claim 1.

The remaining dependent claims have been carefully reviewed and extensively amended to eliminate the noted informalities, as well as additional informalities that applicant discovered during the review of the pending claims. All dependent claims are now in full conformity in Section 112.

In view of the foregoing, the retraction of the Section 112 rejection is requested.

The Office Action noted that applicant did not file a certified copy of Austrian priority application No. A 511/2004 as required by 35 USC §119(b). This application is the

national phase of PCT Application No. PCT/AT2005/000054, to which Section 119 does not apply. In view thereof, applicant requests confirmation that this application in its present form is entitled to all claimed priorities and that a copy of the Austrian application is not needed to perfect the priority claim.

Most claims, including independent claim 1, now canceled and replaced by new independent claim 37, have been rejected for anticipation by Sjoberg (US 2004/0182036).

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil of California*, 814 F.2d 628, 631; 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Thus, for anticipation the “identical invention must be shown in as complete detail as is contained in the ... claim”. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236; 9 USPQ2d 1913, 1920 (Fed. Circ. 1989). MPEP §2131.

For the reasons discussed in more detail below, independent claim 37, which has been substituted for now-canceled, originally filed claim 1, is not anticipated by Sjoberg.

The present invention, as defined by the pending claims, inserts a tongue 6 which projects from a side of one plate into a groove 12 that extends into a side of another, opposing panel. A surface 7 of the tongue has a recess 3 with a generally triangular cross-section, as is best seen in Figs. 2 and 3 of the present application. The recess ends in a “limiting wall” or nose (in the terminology of claim 37) 22 on a side of recess 3 which is remote from an inner end of groove 12.

The opposing wall surface 15 defined by groove 12 is angularly inclined relative to the upper surface 18 of the panel which terminates in a “chamfer” or projection 29 that extends from groove wall surface 15 towards tongue 6 of the other plate, as is illustrated in Figs. 2 and 3.

A preferably adhesive, flexibly deformable bead 8 is placed in and adhesively adhered to recess 3 in the tongue and projects outwardly of the recess towards detent recess 5 in the opposing wall surface 15 of groove 12. The tip or edge of wall area 22 is substantially above

the end edge or corner edge toward which detent surface 4, defined by chamfer projection 29, extends, as is described in paragraph [0056] of the Substitute Specification.

Thus, a tongue 6 of one plate is readily inserted into a groove 12 of a plate that is to be joined by slidably moving the plates relative to each other in the plane in which the plates are to be joined. During the joining movement of the plate, chamfer projection 29 can slide over (or under, as seen in Fig. 2) the projecting portion of bead 8 until the “detent surface 4 engages the portion 10 of bead 8, which projects from the recess 3, thus locking the tongue 6 in the groove 12”, as disclosed in paragraph [0057] of the Substitute Specification. When the tongue is fully inserted into the groove, the bead has passed chamfer projection 29 and, due to its flexibility, returned to its original shape, thereby filling the space defined by detent recess 5 in the groove surface opposite the recess 3. This establishes a mechanical lock that prevents withdrawal of the tongue from the groove and an adhesive connection due to the adhesive nature of the material of which bead 8 is constructed.

Sjoberg discloses a groove and tongue connection for joining two panels. One of the panels has a tongue 29, the under side of which defines a recess 26' that overlies a recess 27 formed by a wall of groove 30 of the other panel and which carries a flexible insert 27'. As is illustrated in Figs. 4a-4c, the tongue 29 is inserted into groove 30 by sliding the two panels towards each other. In the assembled state, illustrated in Figs. 4b and 4c, snapping web 26 rests in recess 27 in the groove. The snapping web prevents the withdrawal of the tongue out of the groove because it is blocked by the end of the lower leg of the panel which borders recess 27.

Sjoberg does not disclose how the tongue can be inserted into the groove since the snapping web 26 interferes with the free end of the lower leg of the panel with the groove. In whatever way the tongue might be inserted into the groove, once inserted, the interference between the snapping web 26 and the raised end of the lower leg of the other panel prevents the separation of the two panels because there is no clearance or gap between the lowermost surface of the snapping web and the uppermost surface of the lower leg of the other panel which projects upwardly past recess 27, as is illustrated in Figs. 4b and 4c.

New independent claim 37 is limited, amongst others, to a recess “having a triangular cross-section formed in a surface of the tongue ... which slopingly extends relative to a face surface (18) of the plate (1, 2) or by a portion of a surface (7) of the tongue which slopingly extends relative to the face surface (18) of the plate”

In Sjoberg, the surface which receives recess 26' is parallel to the face surface of the plate and not sloping relative to the face surface as required by the claim.

For at least this reason, claim 37 is not anticipated by Sjoberg.

Claim 37 further recites that the recess in the tongue has “a depth of between 30 to 55% of a thickness of the bead or web” No bead or web is mounted in tongue recess 26' of Sjoberg, and no height and thickness ratio is therefore provided by the reference.

For at least this further reason, claim 37 is not anticipated by Sjoberg.

Claim 37 additionally requires that “the detent surface (4) forms a direct extension of an inner surface (15) of a base of the groove”, as is illustrated in Figs. 2 and 3 of the present application.

In contrast thereto, in Sjoberg, the corresponding recess 27 in the lower leg of the panel is recessed into the surface of the tongue, as is seen in all figures of the reference. At no time does recess 27 of Sjoberg form a direct extension of the inner surface of the base of the groove.

At least for this additional reason, claim 37 is not anticipated by Sjoberg.

Claim 37 also requires that “in the assembled state of the plates, the groove (12) and tongue (6) between the bead or web (8) and a rounded transition wall surface (21) between the inner surface (5) of the groove and the detent surface (4) define a moon-shaped gap 21”.

No part of Sjoberg discloses or suggests the formation of such a moon-shaped gap and, more importantly, the structure of Sjoberg does not permit the formation of such a gap.

At least for this further reason, claim 37 is not anticipated by Sjoberg.

The remaining dependent claims 2-13, 15-19, 21, 22, 24, 25, 27, 30, 32, 33, 35 and 36 are directed to specific features of the present invention which are independently patentable. These claims are further allowable because they depend from allowable parent claim 37.

Applicant additionally submits new independent claim 38, which addresses the present invention from a slightly different perspective than does claim 37.

Claim 38 requires the formation of a recess in a surface defined by the tongue which faces an opposing surface defined by the groove of the other panel and a nose which extends in a longitudinal direction of the tongue and is arranged on the side of the recess that is remote from an inner end of the groove. Claim 38 also requires that the groove in the other panel is defined by a chamfer projection that is positioned substantially opposite the nose when the panels are in their assembled state and which defines a detent recess that is proximate a side thereof remote from the inner end of the groove.

Claim 38 recites “a bead made of an adhesive, plastically deformable material applied to the recess in each tongue of the panels, the bead being dimensioned so that when placed in the recess the bead projects past the recess” In contrast thereto, no adhesive, plastically deformable bead is placed into web recess 26' of the tongue in Sjoberg. Moreover, even the flexible insert 27 in the recess formed in the other panel does not project past the recess.

For at least this reason, claim 38 is not anticipated by Sjoberg.

Claim 38 further requires that the nose and chamfer projection, which are substantially opposite each other when the panels are in their assembled state, are “configured and dimensioned so that upon full insertion of the tongue of the given panel into the groove of another panel, the nose and the chamfer projection remain spaced apart in a direction perpendicular to the plane of the flat surface so that the nose and chamfer projection can move past each other without contacting each other during insertion of the tongue into the groove”

In Sjoberg, snapping web 26 is not spaced apart from the end of the groove surface in a direction perpendicular to the face of the panel. Instead, they interfere with each

other. In whatever way nose 29 might be inserted into groove 30 of Sjoberg, the nose (of the tongue) and the “chamfer projection” on the panel with the groove are never spaced apart in the direction perpendicular to the plane of the flat surface. Thus, with the panel construction disclosed by Sjoberg, it is impossible to move the nose and the chamfer projection “past each other without contacting each other during insertion of the tongue into the groove” as required by claim 38.

For at least this further reason, claim 38 is not anticipated by Sjoberg.

Additionally, claim 38 requires that “the bead extends from the recess into the detent recess and maintains joined panels in edge-to-edge contact by mechanically and adhesively securing the tongue of the given panel to the groove of the other panel”.

In Sjoberg, there is no bead which forms a mechanical or adhesive connection between the tongue and the cooperating groove. In this context, applicant points out that insert 27' of Sjoberg is a “flexible insert ... to bulge out when being compressed” (paragraph [0031], last sentence). The only elements which retain the tongue in the groove of Sjoberg are the snapping web 26 and the end of the leg in the second panel which includes recess 27 into which the snapping web extends. There is no bead between the tongue and the groove of Sjoberg which could form any connection, whether mechanical, adhesive, or otherwise.

At least for this additional reason, claim 38 is not anticipated by Sjoberg.

In view of the foregoing, applicant submits that Sjoberg does not expressly or inherently disclose the above-discussed elements of independent claims 37 and 38. Sjoberg therefore does not disclose the identical invention in as complete detail as is contained in the claims, as is required by the above-cited references and MPEP §2131. Accordingly, none of the pending claims are anticipated.

CONCLUSION

In view of the foregoing, applicant submits that this application is in condition for allowance, and a formal notification to that effect at an early date is requested.

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If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (415) 273-4730 (direct dial).

Respectfully submitted,



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